

8.1.9.m *J 13 East*

Site Description and Existing Conditions

J 13 East is located on a 66 ha private parcel in Spring Canyon in Otay Mesa. Two of the vernal pools are located within the MHPA and the site is un-conserved. The parcels are zoned Residential and Open Space, and surrounding land uses include MHPA and non-MHPA open space, with residential developments being proposed for adjacent and northern parcels. J 12 is located on the same parcel.

Eight vernal pools (239 m² combined basin area [2572.575 ft²]) were mapped in 2003. The basins occur in Olivenhain cobbly loam and Hueruero loam, and upland vegetation is non-native grasslands and coastal sage scrub. *E. aristulatum* was observed at J 13 East in 2003 while *O. californica* was not relocated after 1986.

The site has been historically impacted by cattle, border traffic and Border Patrol activities (Bauder, 1986). Currently, the cattle have been removed but impacts from border enforcement and off-road vehicles continue.

Threats

Development

J 13 East is privately owned and not conserved. The portions of each parcel that contain vernal pools are within the MHPA.

Invasive Species

Invasive species occur in the upland areas and the vernal pools basins.

Edge Effects

Development of lower Otay Mesa may isolate the J 13 East vernal pools from surrounding open space and nearby vernal pool complexes.

Trespass

Impacts occur from recreational off-road vehicles, foot traffic and Border Patrol vehicles.

Litter

The site may be impacted by wind-blown debris, dumping, litter and itinerant encampments. Development of proposed nearby residential neighborhoods may minimize these impacts.

Fire and Fire Suppression

The J 13 East vernal pools are located in a currently undeveloped area. The site may serve as a staging area in the event of a fire if defensible structures are developed in the vicinity.

Current Management Activities

No management activities are planned or on-going.

Management Recommendations

The portion of this site containing vernal pools and within the MHPA is recommended for conservation through public acquisition or private mitigation. Any proposed development on the remaining portions of the site should consider vernal pools on adjacent parcels during mitigation and preserve design to minimize impacts from isolation.

Any on-site preserves should be located within areas zoned Open Space; if additional areas are conserved, they should be rezoned to Open Space.

Restore and/or enhance vernal pool basins to maximize habitat for sensitive species. For example, *O. californica* was not relocated in 2003 and *E. aristulatum* exists in only one of the basins. The potential of each vernal pool to support species should be assessed and, where appropriate, sensitive species should be reintroduced. All reintroductions shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

This site was identified as necessary to stabilize the populations of *E. aristulatum*, *P. nudiusscula*, *O. californica*, *N. fossalis*, *B. sandiegonensis*, and *S. woottoni*, by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998). All future management activities should promote the recovery and success of these species.

The following conditions shall be met if the site is used for mitigation or acquired for conservation.

Fencing shall be installed to preclude access while leaving the site open to adjacent open space areas with lower risk of trespass. Appropriate bilingual signage shall be developed with both educational and no-trespassing elements.

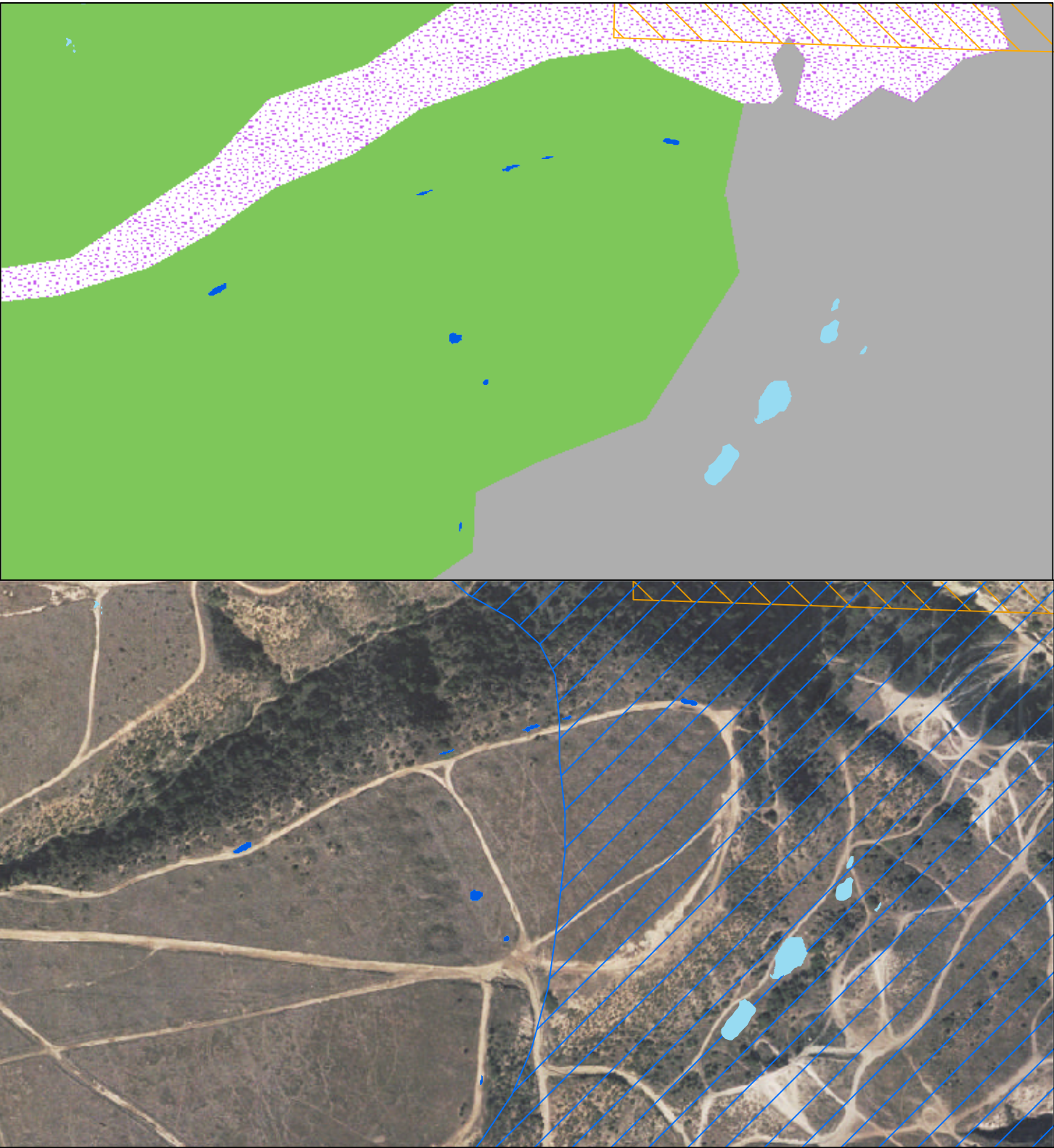
A qualified biologist shall assess the site for non-native, invasive species, and shall recommend and implement a removal and re-vegetation plan. Restoration of native grasslands at this site is encouraged to limit the invasion of vernal pool basins by invasive, exotic species. Weeding within and immediately adjacent to vernal pools should be done by hand, and herbicides shall not be used.

An endowment should be provided to fund required annual maintenance such as biological monitoring, repair of fencing and trash removal.

If the site is used for mitigation, a fire management plan shall be prepared and included in the adopted Habitat Management Plan.

It is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate local stewardship of open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Figure 55



J 13 East



0.05 Miles
0.1 Kilometers

- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Coastal Sage Scrub
- Grassland
- Disturbed Land

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.9.n *J 13 North*

Site Description and Existing Conditions

J 13 North is located on a 16 ha site comprised of five privately owned parcels on the mesa between Spring and Denberry Canyons in Otay Mesa. Three parcels, containing seven vernal pools, were conserved and owned by The Environmental Trust prior to the bankruptcy proceedings. The remaining vernal pools at J 13 North are not conserved; however, all vernal pools are within the MHPA. The site is zoned for multi- and single family residential development. Surrounding land uses include MHPA and non-MHPA open space, with residential developments being proposed for adjacent and northern parcels. The nearby J 12 site is located on the same parcel as a portion of the J 13 North basins.

Forty-one vernal pools (1,116 m² combined basin area [0.276 acres]) were mapped in 2003. The basins occur in Olivenhain cobbly loam and Hueruero loam, and upland vegetation is non-native grasslands and coastal sage scrub.

The J 13 vernal pools were identified by the adopted Recovery Plan for Vernal Pools of Southern California (USFWS, 1998) as a necessary to stabilize populations of the following endangered and threatened species: *E. aristulatum*, *P. nudiusscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoi*.

Threats

Development

J 13 North is privately owned and is not conserved; however, the parts of each parcel that contain vernal pools are within the MHPA.

Invasive Species

Invasive species occur in both the upland areas and vernal pools basins.

Edge Effects

Development of southern Otay Mesa may isolate the J 13 North vernal pools from surrounding open space and nearby vernal pool complexes.

Trespass

Impacts occur from recreational off-road vehicles, immigrant traffic and Border Patrol vehicles.

Litter

The site may be impacted by wind-blown debris, dumping, litter and itinerant encampments. Development of proposed residential neighborhoods around the site may limit the occurrences of these impacts.

Fire and Fire Suppression

The J 13 North vernal pools are located in a currently undeveloped area. The site may serve as a staging area in the event of a fire if defensible structures are developed in the vicinity.

Current Management Activities

No management activities are planned or on-going.

Management Recommendations

Due to the presence of vernal pools, J 13 North is recommended for conservation through public acquisition or private mitigation. The site is located adjacent to large MHPA open space areas and is adjacent to vernal pool mitigation sites. However, development is not precluded from this site; if all or portions of the site are conserved through acquisition or on-site mitigation for development, the following recommendations shall be implemented.

Restoration and/or enhancement of the vernal pools are appropriate given the high species diversity recorded historically at nearby vernal pool sites. Restoration and/or enhancement actions should be focused on creating stable populations of *E. aristulatum*, *P. nudiuscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*, in accordance with the U.S. Fish and Wildlife Service Recovery Plan.

Fencing shall be installed to preclude access while maintaining connectivity with adjacent open space areas with lower risk of trespass. Appropriate bilingual signage shall be developed with both educational and no-trespassing elements.

Annual maintenance shall be required to provide fence and sign repair and trash removal, as necessary. It is recommended that an endowment fund be established to fund maintenance activities in perpetuity.

A qualified biologist shall assess the site for non-native, invasive species, and shall recommend and implement a removal plan, if necessary. Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary, however, herbicides should not be used in or adjacent to vernal pools. Targeted species for removal include, but are not limited to Italian ryegrass (*Lolium multiflorum*), rabbitfoot grass (*Polypogon monspeliensis*), yard knotweed (*Polygonum arenastrum*), fennel (*Foeniculum vulgare*) and curly dock (*Rumex crispus*).

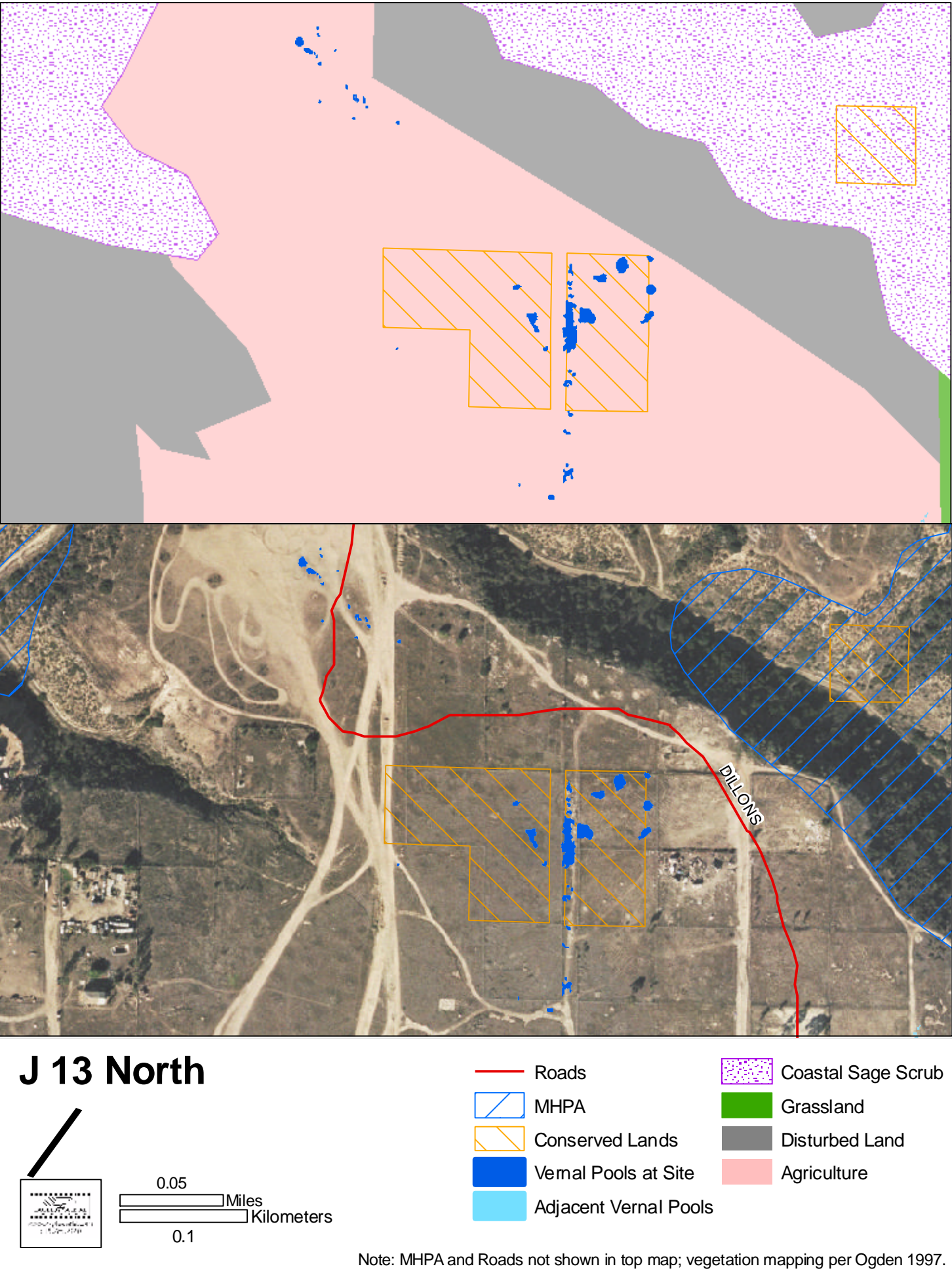
Portions of this site that are currently conserved should be rezoned to Open Space. Any additional areas conserved in the future should also be rezoned.

If the site is used for mitigation, a fire management plan shall be prepared and included in the adopted Habitat Management Plan. Adaptive management shall include management of the site to improve habitat conditions for native, solitary bees known as obligate pollinators for vernal pool species.

It is recommended that educational programs be provided to nearby schools, Home-Owner's Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate local stewardship of open space, with the overall goal of developing positive neighborhood awareness of the preserve.

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Figure 56



8.1.9.o *J 13 South*

Site Description and Existing Conditions

J 13 South is located on eleven private parcels covering approximately 200 ha on the mesa between Spring and Denney Canyons in Otay Mesa. The site is not conserved and is located outside of the MHPA. J 13 South is zoned for residential, elementary schools, and active parks; surrounding land uses include undeveloped lands and abandoned structures with residential developments being proposed for several surrounding parcels.

Forty-four vernal pools (2,490 m² combined basin area [0.615 acres]) were mapped at this site. The basins occur in the Hueruero loam soil series and upland vegetation is primarily non-native grasslands on the mesa with coastal sage scrub in canyons. *E. aristulatum* and *Branchinecta* spp. were observed in 2003, and *O. Californica* was observed in 2007.

Historically, the site was subject to pressure from grazing and land squatters, while current impacts are generally related to off-road vehicles, Border Patrol and immigrant traffic.

Threats

Development

J 13 South is privately owned and not conserved. The basins are located outside of the MHPA and community plan open space. Development could potentially isolate vernal pools from adjacent open space and vernal pool preserve areas.

Invasive Species

Invasive species occur both in upland areas and in the vernal pools basins.

Trespass

Impacts occur from recreational off-road vehicles, immigrant traffic and Border Patrol vehicles.

Edge Effects

Development of southern Otay Mesa may isolate the J 13 South vernal pools from surrounding open space and nearby vernal pool complexes.

Litter

The site may be impacted by wind-blown debris, dumping, litter and itinerant encampments. In addition, existing vacant structures remain on portions of the site. Development of proposed nearby residential neighborhoods may alter the pattern these impacts.

Fire and Fire Suppression

The J 13 South vernal pools are located in a currently undeveloped area. The site may serve as a staging area in the event of a fire if defensible structures are developed in the vicinity.

Current Management Activities

No management activities planned or on-going.

Management Recommendations

The portion of this site containing vernal pools and within the MHPA is recommended for conservation through public acquisition or private mitigation. Any proposed development on the remaining portions of the site should consider vernal pools on adjacent parcels during mitigation and preserve design to minimize impacts from isolation.

Restoration and/or enhancement of the vernal pool basins may be appropriate given both the historic records of species (i.e., *M. minimus*, *N. fossalis* and *O. californica*) and higher species diversity of nearby vernal pool sites, and should be considered if conservation occurs. All reintroductions shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

This site was identified as necessary to stabilize the populations of *E. aristulatum*, *P. nudiuscula*, *O. californica*, *N. fossalis*, *B. sandiegonensis*, and *S. woottoni*, by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998). All future management activities should promote the stabilization and recovery of these species

The following conditions shall be met in if the site is used for mitigation or acquired for conservation. Debris shall be removed from vernal pool basins. Debris removal shall occur by hand or with equipment that is staged and positioned outside of vernal pool basins; qualified biologists shall monitor all removal activities to ensure that no impacts to the basins occur. In addition, abandoned structures shall be removed and the immediate area restored from any areas proposed for inclusion into preserve and/or mitigation sites.

Fencing shall be installed to preclude access while maximizing connectivity with adjacent open space areas with limited risk of trespass. Appropriate bilingual signage shall be developed with both educational and no-trespassing elements.

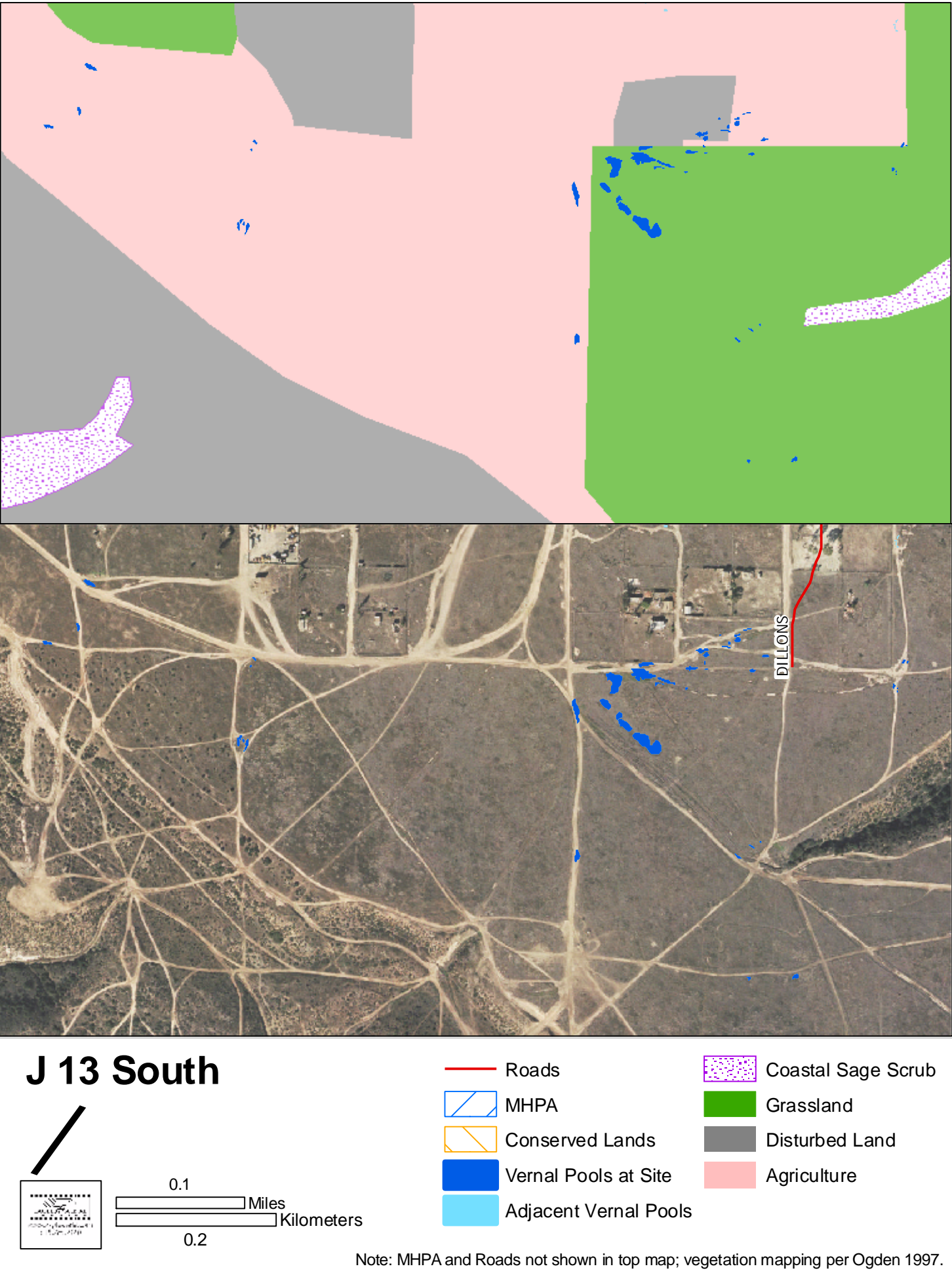
A qualified biologist shall assess the site for non-native, invasive species, and shall recommend and implement a removal and re-vegetation plan. Restoration of native grasslands at this site is encouraged to limit the invasion of vernal pool basins by invasive, exotic species. Weeding within and immediately adjacent to vernal pools should be done by hand, and herbicides should not be used.

An endowment should be provided to fund required annual maintenance such as biological monitoring, fencing repair and trash removal.

If the site is used for mitigation, a fire management plan shall be prepared and included in the adopted Habitat Management Plan.

It is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate local stewardship of open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Figure 57



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